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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,865	01/23/2002	Hilarie Orman	112024-0086	5247
21186	7590	08/31/2005	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402-0938			LEE, PHILIP C	
			ART UNIT	PAPER NUMBER
			2154	
DATE MAILED: 08/31/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,865

Applicant(s)

ORMAN ET AL.

Examiner

Philip C. Lee

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

1. This action is responsive to the amendment and remarks filed on June 23, 2005.
2. Claims 1-21 are presented for examination and claim 22 is canceled.
3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.
4. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Applicant's election without traverse of in the reply filed on 06/23/2005 is acknowledged.

Claim Rejections – 35 USC 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2, 9-10 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashyap, U.S. Patent Application Publication 2003/0014684 in view of Raman et al, U.S. Patent 6,910,078 (hereinafter Raman) and Webber, U.S. Patent Application Publication 2003/0039209 (hereinafter Webber).

8. Kashyap and Webber were cited in the last office action.

9. As per claims 1, 9 and 21, Kashyap taught the invention substantially as claimed comprising:

a structure for the first and second servers adapted to access shared state information with respect to the connection (page 1, paragraphs 3 and 56);

a device for storing a data packet sequence number of an acknowledgement byte received by the second server and a sequence number related to the shared state information (page 3, paragraph 61); and

a device for recreating the connection within the second server based upon the sequence numbers (page 3, paragraph 61).

10. Kashyap did not specifically teaching the structure includes an identification of an application layer protocol. Raman taught a similar system wherein the structure includes an

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identification of an application layer protocol being used for communication by an application (col. 11, lines 21-36).

11. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap and Raman because Raman's teaching of including an identification of the protocol being used by an application would increase the efficiency of Kashyap's system by allowing a second server to resume transmission of data to a client with a minimum disruption of service when a transmission of data from a first server fails (col. 9, lines 29-34).

12. Kashyap and Raman did not teach comparing a data packet sequence number of an acknowledgement byte received by the second server with a sequence number stored in the shared state information with respect to the connection. Webber taught a method of comparing a data packet sequence number of an acknowledgement byte received by the server with a sequence number stored with respect to the connection (page 3, paragraph 23).

13. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman and Webber because Webber's method of comparing a data packet sequence number of an acknowledgement byte received by the server with a sequence number stored with respect to the connection would increase the efficiency of Kashyap's and Raman's systems by allowing retransmission of packet

beginning with the skipped packet as detected in the sequence number of the acknowledgement (page 2, paragraph 18).

14. As per claims 2 and 10, Kashyap, Raman and Webber taught the invention substantially as claimed in claims 1 and 9 above. Webber further taught wherein the device for recreating includes an application program interface (API) for communicating with a plurality of protocols in the second server and providing a ready signal (e.g. successful completion code) in response to a successful comparison by the device for comparing (page 3, paragraph 23).

15. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman and Webber because Webber's method of providing a ready signal in response to a successful comparison would increase the alertness of Kashyap's and Raman's systems by providing a notification for retransmission of packet beginning with the skipped packet.

16. As per claim 20, Kashyap, Raman and Webber taught the invention substantially as claimed in claim 9 above. Kashyap further taught wherein the recreating includes assignment of the second server to takeover the connection based upon a detecting a failure or overburdening of the first server (page 1, paragraph 8).

17. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashyap, Raman and Webber in view of "Official Notice".

18. As per claims 8 and 19, Kashyap, Raman and Webber taught the invention substantially as claimed in claims 1 and 9 above. Although, Kashyap taught wherein the shared state information includes an identifier of the first server, the time at which the state information is gathered, a source IP address, a source TCP port, a destination IP address, a destination TCP port, an application layer protocol with respect to the connection, an initial packet sequence number for the source, an initial packet sequence number for the destination, a current packet sequence number for the source, a current packet sequence number for the destination, and other implementation-specific information (page 2, paragraph 22; page 3, paragraph 56-page 4, paragraph 70), however, Kashyap did not specifically detailing other type of shared state information such as identifier for the object. "Official Notice" is taken for the concept of including other type of shared state information is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include shared state information such as identifier for the object because by doing so it would increase the system flexibility by including different implementation-specific information depending on the type of implementation (page 4, paragraph 70).

19. Claims 3, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashyap, Raman and Webber in view of Fisher, U.S. Patent 5,828,569 (hereinafter Fisher).

20. Fisher was cited in the last office action.

21. As per claims 3 and 11, Kashyap, Raman and Webber taught the invention substantially as claimed in claims 1 and 9 above. Kashyap, Raman and Webber did not teach a connection checkpoint program interface. Fisher taught comprising a connection checkpoint application program interface (API) for communicating with each of a plurality of protocols in the first server and for causing each of the plurality of protocols to append relevant state information to a data block passed to each of the plurality of protocols with respect to the connection so as to provide the relevant state information to the shared state information (col. 2, lines 26-29; col. 3, lines 35-44; col. 3, line 62-col. 4, line 15).

22. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman, Webber and Fisher because Fisher's teaching of connection checkpoint application program interface would increase the reliability of Kashyap's, Raman's and Webber's systems by providing relevant state information during takeover of a connection, so that no connections between server and client application are lost (col. 1, lines 20-23).

23. As per claim 14, Kashyap, Raman, Webber and Fisher taught the invention substantially as claimed in claim 11 above. Fisher further taught comprising a network protocol stack including the plurality of protocols and checkpoint information based upon the connection checkpoint, and using an application program interface (API) on the second server to notify each of the protocols in the network stack to use the checkpoint information to thereby create an "unready" connection (col. 5, line 49-col. 6, line 15).

24. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman, Webber and Fisher because Fisher's teaching of using the checkpoint information to create an "unready" connection would increase the reliability of Kashyap's, Raman's and Webber's systems by allowing checkpoint information to be used during takeover of a connection, so that no connections between server and client application are lost (col. 1, lines 20-23).

25. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashyap, Raman, Webber and Fisher in view of "Official Notice".

26. As per claims 4 and 15, Kashyap, Raman, Webber and Fisher taught the invention substantially as claimed in claims 3 and 11 above. Although, Kashyap, Raman, Webber and Fisher taught wherein the connection checkpoint API is adapted to bundle connection information with respect to a protocol having a plurality of related connections, the related connections involving both TCP protocol (see Kashyap, page 3, paragraph 56-page 4, paragraph 63) and other network protocol (page 6, paragraph 106), however, Kashyap, Raman, Webber and Fisher did not specifically detailing the other network protocol is User Datagram Protocol. "Official Notice" is taken for the concept of User Datagram Protocol (UDP) is known and accepted in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include User Datagram Protocol because by doing so it would increase the field of use in their system.

27. Claims 5-7 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashyap, Raman, Webber and Fisher in view of "Official Notice" as applied to claims 4 and 5 above, and in further view of Syvanne et al, U.S. Patent Application Publication 2002/0112189 (hereinafter Syvanne).

28. Syvanne was cited in the last office action.

29. As per claims 5 and 16, Kashyap, Raman, Webber and Fisher did not teach a protocol having a control connection and a data connection. Syvanne taught wherein the protocol having a plurality of related connections comprises a protocol having a control connection and a data connection (page 2, paragraph 10).

30. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman, Webber, Fisher and Syvanne because Syvanne's teaching of a protocol having a control connection and a data connection (e.g. File Transfer Protocol) would increase the field of use in their system.

31. As per claims 6 and 17, Kashyap, Raman, Webber, Fisher and Syvanne taught the invention substantially as claimed in claims 5 and 16 above. Syvanne further taught wherein one or more of the data connections are carried over UDP or another non-TCP transport protocol (page 2, paragraph 10).

32. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the teachings of Kashyap, Raman, Webber, Fisher and Syvanne for the reason set forth in claim 5 above.

33. As per claims 7 and 18, Kashyap, Raman, Webber, Fisher and Syvanne taught the invention substantially as claimed in claims 6 and 17 above. Kashyap further taught wherein data packets on one or more of the data connections are adapted to be transmitted to one or more IP-multicast groups (page 3, paragraph 50).

34. Applicant's arguments with respect to claims 1-21, filed 6/23/05, have been fully considered but are not deemed to be persuasive and are moot in view of new ground of rejection.

35. In the remark applicant argued that

(1) the "Official Notice" taken in claims 8 and 19 is not known in the art and request an example to support this Notice.


36. In response to point (1), Wang et al, U.S. Patent 6,826,613 taught a first device comprising a table of database objects cross-referenced to the database servers which host objects. This means that the table of database objects must contains an identifier of the object in order to reference other database servers that host the object. The identification of the object

hosted in other database server would allow a first device to handoff a connection to a second server. Wang et al's teaching provides support for the "Official Notice" taken in claims 8 and 19 for the concept of including other type of shared state information (e.g. table of database object that inherently comprised identification of object) is known and accepted in the art.

37. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

38. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Lee whose telephone number is (571) 272-3967. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Philip Lee

 **JOHN FOLLANSBEE
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